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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,289	05/26/2006	Robert J Benkowski	021906-024US	3187
22904 7590 02/25/2010 LOCKE LORD BISSELL & LIDDELL LLP ATTN: IP DOCKETING 600 TRAVIS SUITE 3400 HOUSTON, TX 77002-3095				
EXAMINER				
NARAYANASWAMY, SHUBATRA				
ART UNIT		PAPER NUMBER		
3762				
NOTIFICATION DATE		DELIVERY MODE		
02/25/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

hoip@lockelord.com

**Office Action Summary****Application No.**

10/560,289

**Applicant(s)**

BENKOWSKI ET AL.

**Examiner**SHUBATRA  
NARAYANASWAMY**Art Unit**

3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 2-5,7,9,13-15,18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6,8,10-12,16 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 01/30/2007
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 2-5, 7, 9, 13-15, 18, and 19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/30/2009.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 6, 8, 10-12, 16, and 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention is directed to a judicial exception to 35 U.S.C. 101 (an abstract idea) and is not directed to a practical application of such judicial exception because the claim does not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 16 recites the limitation "the Constant Speed mode" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 6, 8, 10-12, 16, and 17 rejected under 35 U.S.C. 102(b) as being anticipated by Ash (US 4995268).

**As to claim 1**, Ash discloses a method of controlling a blood pump, comprising: analyzing an instantaneous flow waveform in both the time domain and frequency domain; and controlling the pump in response thereto (col. 12 ll. 5-70).

**As to claim 6**, Ash discloses the method of claim 1, in which the analysis of the flow wave form determines a suction boundary condition (col. 12 ll. 5-70).

**As to claim 8**, Ash discloses the method of claim 6, further comprising boundary conditions for maximum power, maximum speed, minimum speed, minimum flow, change in flow peak-to-peak amplitude over change in pump speed, change in mean flow over change in pump speed, and change in pump power over change in pump speed (col. 12 ll. 5-70).

**As to claim 10**, Ash discloses the method of claim 6 or claim 8 where the boundary conditions become control parameters for closed loop control (col. 12 ll. 5-70).

**As to claim 11**, Ash discloses the method of claim 6 or claim 8 where the boundary

conditions cause the control system to clamp pump speed, and where upper boundary conditions do not allow the speed to be increased further while lower boundary conditions do not allow the speed to be decreased further (col. 12 ll. 5-70).

**As to claim 12**, Ash discloses the method of claim 6 or claim 8 where the boundary condition of suction causes a predetermined decrease in speed then periodically attempts to return to the desired control mode at predetermined intervals (col. 12 ll. 5-70).

**As to claim 16**, Ash discloses the method of claim 1 where a fail-safe feature to switch to the Constant Speed mode is automatically enabled in the event of a lost, erroneous, or compromised flow signal (col. 10 ll. 10-20).

**As to claim 17**, Ash discloses the method of claim 1 where the quality of the flow signal is determined by the frequency domain analysis of the real-time flow waveform (col. 12 ll. 5-70).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHUBATRA NARAYANASWAMY whose telephone number is (571)-270-7406. The examiner can normally be reached on M-F, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571)-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Manuel/  
Primary Examiner, Art Unit 3762

/S. N./  
Examiner, Art Unit 3762